UTAH STATE E-911 COMMITTEE
GRANT APPLICATION
from
Salt Lake Valley Emergency Communications Center
West Valley City, Utah
June 19, 2008

Grant Funding Request

Salt Lake County Emergency Communications Center (VECC) requests grant funding to pilot and implement a Next Generation 9-1-1 (NG 9-1-1) network solution for the delivery of wireless E9-1-1, VoIP, wireline E9-1-1, and data-based emergency calls.

1. $25,000 grant request for NG 9-1-1 non-recurring charges for services and equipment; no local share.
2. Not to exceed $24,000 for installation of a redundant fiber network (SHARPS ring) to VECC; $12,000 local share.

Total Funding Request: $49,000 ($12,000 local share)

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Background

VECC is a primary Public Safety Answering Point (PSAP) serving Salt Lake County (minus Salt Lake City) with a population in excess of 1 million. VECC serves as a backup facility for 9-1-1 call delivery for Tooele County Sheriff PSAP and for Salt Lake City Police Department PSAP. Salt Lake City Police Department PSAP is VECC's backup facility for 9-1-1 call delivery.

VECC also provides police dispatch services for nine municipalities within Salt Lake County and provides fire and emergency medical dispatch services for nine municipalities and the unincorporated areas of the county.

VECC receives 9-1-1 emergency calls via twelve trunks for wireless and Voice over Internet Protocol (VoIP) calls and nine trunks for wireline calls from the Salt Lake Selective Router (SR). VECC has fully implement Phase II wireless capable. Non-emergency calls are received through the Qwest Kearns Central Office (CO) via two primary and two secondary Primary Rate Interface (PRI) trunks. These trunks plus other data and telephone circuits traverse via a single path from the Kearns CO to the VECC facility.

In 2007, VECC answered in excess of 720,000 9-1-1 emergency and non-emergency calls; 286,000 wireless E9-1-1, 98,000 wireline E9-1-1, and 336,000 non-911 emergency and administrative calls. During 2007, VECC transferred approximately 91,000 calls to the Salt Lake County Sheriff Communications Center, the Salt Lake Area UHP Communications Center, or Salt Lake City Communications Center for dispatch.

Project Description

The project features, implementation methodology, management, and support are described in the Intrado document "Salt Lake Valley Emergency Communications Center (VECC) Technical Proposal Intelligent Emergency Network" (to be provided), and the Qwest/Intrado PowerPoint presentation "Next Generation 911 Solution for Valley Emergency Communications Center and State of Utah, dated June 19, 2008" (to be provided).

Project Benefits

In addition to providing a migration path for additional data services, this project will provide the following immediate benefits:

1. The connectivity associated with the implementation will provide dual routing to VECC and reduce exposure to a catastrophic failure of the existing single path.

2. The existing Qwest SR is unable to provide alternate call routing to multiple PSAPs. Should the need arise for VECC to route calls to another answering point because of facility failure or facility evacuation, the receiving PSAP would be overwhelmed due to the VECC call volume. This project will provide VECC with the ability to selectively route calls to several backup locations rather than to a single location.

Project Cost Breakdown

Key components of the NG 9-1-1 non-recurring charges for services and equipment, as stated in the proposal:

1) Provisioning of 9-1-1 Data in the next generation environment:

    a) 9-1-1 ALI data (Wireless pANI/shell records in the new IP based ALI environment.
    b) 9-1-1 call routing data (SRDB) in the new IP based environment.

NOTE: Most of this data exists in the current 9-1-1 environment and there will be some new data that will be engineered and provisioned in the new environment. This effort requires resources from Intrado's 9-1-1 delivery team to ensure that all the information is provisioned correctly in the next generation 9-1-1 call routing and ALI environment.

2) Trunk engineering and provisioning between next generation network and current carrier networks:

    a) 9-1-1 trunk engineering and migration on a per carrier basis for both SS7 (signaling) and voice trunks.
    b) Testing of these 9-1-1 trunks and ensuring that these are engineered correctly and implemented correctly.
    c) Coordinating and working with wireless carrier technical operations teams.
    d) Coordinating and working with Qwest operations team to prepare and migrate services from current environment to next generation environment.

3) PSAP level configurations:

    a) Trunk engineering between next generation equipment at the PSAP and their current CPE.
    b) Selective transfer codes and fixed transfer codes configuration and provisioning.
    c) Backup and alternate call routing configurations at the PSAP and ensuring interoperability is appropriately engineered and implemented with the legacy selective routers.

Total cost: $25,000

Key components for the installation of a redundant fiber network (SHARPS ring) to VECC:

1) Installation of facilities to deliver self healing, alternate routing DS3 service to VECC.

2) Provision and installation of 24-channel M13 multiplexer, battery back-up and associated backroom equipment to terminate redundant fiber network.

NOTE: Engineering estimates by Qwest provide for costs not to exceed $24,000.
Total cost: $24,000